

Appl. No. 09/909,192
Amdt. Dated July 22, 2004
Reply to Office action of April 22, 2004
Attorney Docket No. P14653/27943-00417
EUS/WP/04-6162

REMARKS/ARGUMENTS

1.) Amendments

The Applicants have amended Claims 1, 10, 17 and 21. Accordingly, Claims 1-26 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

2.) Claim Rejections – 35 U.S.C. § 103(a)

The Examiner rejected Claims 1-3, 6, 8-11, 15-18, 21 and 25-26 under 35 U.S.C. 103(a) as being unpatentable over Salonaho in view of Vijayan. Applicants respectfully traverse the Examiner's rejection and have further amended the pending independent claims to more clearly and distinctly claim the subject matter which Applicants consider as their invention and further submit the following remarks for the Examiner's favorable reconsideration.

The present invention deals with a CDMA network wherein a base station serving a particular server determines that a queue size containing data packets to be sent to a plurality of mobile stations being served within that particular sector has exceeded a certain threshold value and, as a result, an appropriate load-balancing needs to be performed with other sectors. In accordance with the teachings of the present invention, the CDMA system then transmits a message to certain ones of the plurality of mobile stations to not point their respective DRCs toward that over-loaded sector. As fully described in the application, by not pointing the DRC towards a particular sector, that mobile station is no longer being served by that sector and an appropriate load-balancing is achieved.

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EUS/J/P/04-6162

Applicants have further reproduced now amended independent Claim 21 below for the Examiner's review and further consideration:

21. (Currently Amended) A method for load sharing within a Code Division Multiple Access 2000 (CDMA2000) network, said method comprising:

- storing a predefined threshold for a sector of said CDMA2000 network, said sector having a queue associated therewith for storing data packets associated with data sessions involving one or more mobile terminals whose respective data rate controls (DRCs) are pointed towards said sector, said queue having a size wherein said queue size is the amount of data packets stored within said queue to be transmitted to said one or more mobile terminals;
- comparing said queue size with said predefined threshold; and
- if said queue size exceeds said predefined threshold, transmitting a respective message to selected ones of said one or more of said mobile terminals instructing said selected one or more mobile terminals to not point their respective DRCs towards said sector.

Applicants respectfully submit that the above recited steps are neither disclosed nor taught by the cited references. The steps of storing a predefined threshold for a sector and comparing that predefined threshold with a queue size for that sector wherein the queue size is the amount of the data packets to be transmitted to those mobile stations whose respective DRCs are pointed towards that sector, and in the event that determined queue size exceeds the predefined threshold value, instructing certain ones of those mobile stations to stop using that particular sector by transmitting a message instructing those mobile terminals to not point their respective DRCs towards said sector are not anticipated or rendered obvious by the cited references.

Appl. No. 09/909,192
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EUS/JJP/04-6162

Specifically, Salonaho merely discloses comparing signal strength or interferences against a threshold value and then adjusting data transmission rate accordingly in that cell area. Accordingly, in Salonaho, as the load within a particular cell increases to such an extent that the minimum requirements of the connection quality (e.g., interferences, signal strengths) cannot be met, appropriate changes are made to data transmission rates within that cell area (Salonaho, page 2, lines 7-24).

However, Salonaho simply fails to disclose or teach the recited steps of comparing the queue size within a sector wherein the queue size is the amount of the data packets to be transmitted within that sector towards those mobile stations and, in the event the queue size is greater than the predefined threshold, instructing certain ones of those mobile stations to stop using that particular sector by transmitting a message instructing those mobile stations to not point their DRCs to that sector. Nothing in Salonaho discloses or teaches such recited steps as claimed by the present invention. In rejecting all of the pending independent claims, the Examiner also stated that Salonaho failed to teach the above steps by stating that "

"Salonaho does not specifically teach a CDMA 2000 network, one or more mobile terminals whose respective data rate controls (DRC) are pointed towards a sector, or transmitting a respective message to selected one or more mobile terminals instructing the selected one or more mobile terminals to not point their respective DRCs toward a sector. (Page 7 of the Office Action).

The Examiner however stated that Vijayan teaches such limitations. Applicants further disagree with the Examiner and submit that Vijayan similarly fails to anticipate or render obvious, independently or in combination with Salonaho, the claimed invention.

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Vijayan basically discloses a system for determining how much power to allocate to each of a plurality of reverse link power control (RLPC) channels to be transmitted from a base station, based upon data rate control (DRC) message transmitted to the base station (Vijayan, Abstract). However, nothing in Vijayan anticipates or renders obvious the steps as claimed by currently pending independent Claim 21.

For example, other than the fact that Vijayan discusses sending data between different stations (Vijayan, Col. 3, line 59 – Col. 4, lines 4 as cited by the Examiner), there is no disclosure or teaching in Vijayan as to the step of comparing a queue size representing the amount of data packets to be transmitted to those mobile stations in that particular sector with a predefined threshold as currently claimed by the present invention.

Additionally, Vijayan also fails to disclose or teach the step of transmitting a message instructing those mobile stations to stop pointing their DRCs to that sector as claimed by the present invention. The portions of Vijayan cited by the Examiner merely states that:

"When the DRC is directed at another Base Station (Step 310), the DRC provides an indication of the C/I on the forward link from that Base Station to the Remote Station. Since generally the Remote Station directs its DRC to the sector with the best forward link, it can be assumed that the forward link from the current sector has a C/I that is lower than that indicated by the DRC. (Vijayan, Col. 11, line 65 – Col. 12, line 5).

Accordingly, other than stating that when the DRC is directed at another base station, the DRC provides an indication of its signal quality to the base station, the cited portion of Vijayan fails to even discuss the possibility of a base station transmitting a message

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Attorney Docket No. P14653/27943-00417
EUS/J/P/04-6162

to mobile station instructing the mobile stations to stop pointing their DRC to that particular sector.

As a result, Applicants respectfully submit that independent Claim 21 is now allowable over the cited references and a Notice of Allowance is respectfully requested. For at least the same reasons as provided above, Applicants further believe remaining independent Claims 1, 10, and 17 are likewise patentable over the cited references and a Notice of Allowance is requested. All other remaining claims are dependent on now allowable independent claims and include other limitations therein.

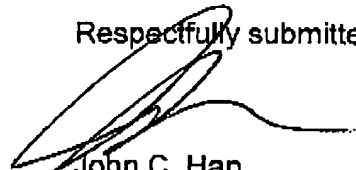
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Attorney Docket No. P14653/27943-00417
EUS/J/P/04-6162

CONCLUSION

In view of the foregoing remarks, the Applicants believe all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for Claims 1-26.

The Applicants request a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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